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DN - 140:218572

TI - Synthesis of trifluorostyrene derivatives as polymer monomers for proton exchange resins

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SO - Faming Zhuanli Shenqing Gongkai Shuomingshu, 13 pp.  
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DT - Patent

LA - Chinese

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APPLICATION NO.

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PN - CN1349962

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OS - MARPAT 140:218572

AB - The title monomers are trifluorostyrene derivs. having meta-C2-6 perfluoroalkyl or/and meta-(CF<sub>2</sub>CF)nOCF<sub>2</sub>CF<sub>2</sub>SO<sub>2</sub>F (Rf) (n=1-4) groups and are synthesized by steps of (1) coupling iodobenzene with iodofluoroalkane derivs. in the presence of Cu at 60-120.degree. for 15-40 h; (2) nitrating the intermediate with HNO<sub>3</sub>/H<sub>2</sub>SO<sub>4</sub> at 30-60.degree. for 15-40 h, (3) reducing with SnCl<sub>2</sub>.cntdot.2H<sub>2</sub>O/concd. HCl at 30-80.degree. for 0.5-2.0 h to m-Rf-aminobenzene, (3) diazotizing at -5.degree. for 1.0-5.0 h, substituting with KI at 45-75.degree. for 0.5- 2.0 h to obtain m-Rf-iodobenzene, and (4) coupling the compd. with CF<sub>2</sub>=CFZnBr in the presence of palladium-based catalyst. The monomers can be used for the proton exchange resin for the proton exchange membrane of fuel cells.

IT - \*\*\*664327-26-8DP\*\*\*, sulfonated

RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)

(preps. of proton exchange resins from trifluorostyrene derivs. bearing meta-perfluoroalkyl substituents)

RN - 664327-26-8 ZCAPLUS

CN - Ethanesulfonyl fluoride, 2-[[1,1,2,2,3,3,4,4,5,5,6,6-dodecafluoro-6-[3-(trifluoroethenyl)phenyl]hexyl]oxy]-1,1,2,2-tetrafluoro-, polymer with (trifluoroethenyl)benzene and 1-(trifluoroethenyl)-3-(trifluoromethyl)benzene (9CI) (CA INDEX NAME)

CM 1

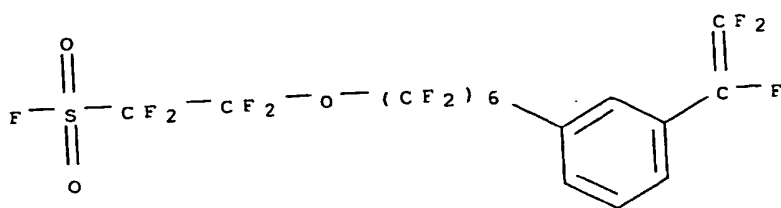
CRN 664327-21-3

CMF C16 H4 F20 O3 S

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C(F)(F)Fc1ccc(C(F)=O)cc1
$$\begin{array}{c} \text{C F}_2 \\ || \\ \text{F} - \text{C} - \text{P h} \end{array}$$
F-C(=F)(F)c1ccc(cc1)C(F)(F)FC(F)(F)OC(F)(F)C(F)(F)C(F)(F)S(=O)(=O)F



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